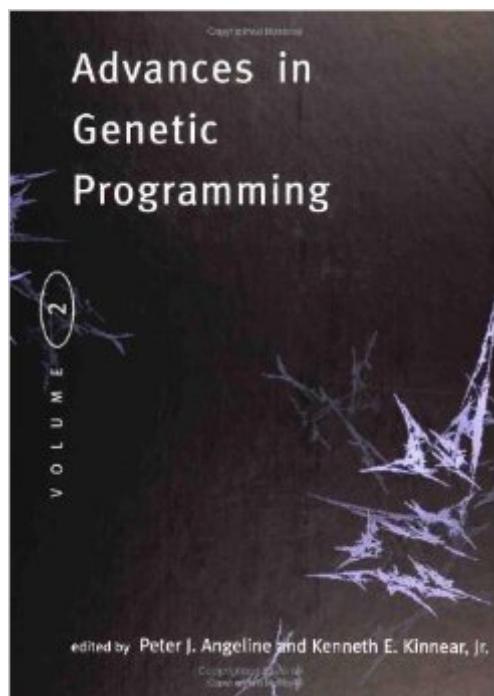


The book was found

# Advances In Genetic Programming, Vol. 2 (Complex Adaptive Systems)



## Synopsis

Genetic programming, a form of genetic algorithm that evolves programs and program-like executable structures, is a new paradigm for developing reliable, time- and cost-effective applications. The second volume of *Advances in Genetic Programming* highlights many of the most recent technical advances in this increasingly popular field. The twenty-three contributions are divided into four parts: Variations on the Genetic Programming Theme; Hierarchical, Recursive, and Pruning Genetic Programs; Analysis and Implementation Issues; and New Environments for Genetic Programming. The first part extends the core concepts of genetic programming through the addition of new evolutionary techniques -- adaptive and self-adaptive crossover methods, hill climbing operators, and the inclusion of introns into the representation. Creating more concise executable structures is a long-term research topic in genetic programming. The second part describes the field's most recent efforts, including the dynamic manipulation of automatically defined functions, evolving logic programs that generate recursive structures, and using minimum description length heuristics to determine when and how to prune evolving structures. The third part takes up the many implementation and analysis issues associated with evolving programs. Advanced applications of genetic programming to nontrivial real-world problems are described in the final part: remote sensing of pressure ridges in Arctic sea ice formations from satellite imagery, economic prediction through model evolution, the evolutionary development of stress and loading models for novel materials, and data mining of a large customer database to optimize responses to special offers.

## Book Information

Series: Complex Adaptive Systems (Book 1)

Hardcover: 538 pages

Publisher: A Bradford Book (October 29, 1996)

Language: English

ISBN-10: 0262011581

ISBN-13: 978-0262011587

Product Dimensions: 7 x 1.4 x 9 inches

Shipping Weight: 2.4 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #4,677,305 in Books (See Top 100 in Books) #93 in Books > Computers & Technology > Programming > Algorithms > Genetic #3241 in Books > Computers & Technology

> Computer Science > AI & Machine Learning > Intelligence & Semantics #29023 in Books >

Computers & Technology > Software

[Download to continue reading...](#)

Advances in Genetic Programming, Vol. 3 (Complex Adaptive Systems) Advances in Genetic Programming, Vol. 2 (Complex Adaptive Systems) Advances in Genetic Programming (Complex Adaptive Systems) An Introduction to Genetic Algorithms (Complex Adaptive Systems) The Simple Genetic Algorithm: Foundations and Theory (Complex Adaptive Systems) Signals and Boundaries: Building Blocks for Complex Adaptive Systems (MIT Press) Elements of Artificial Neural Networks (Complex Adaptive Systems) Genetic Algorithms and Genetic Programming in Computational Finance IEC 61131-3: Programming Industrial Automation Systems: Concepts and Programming Languages, Requirements for Programming Systems, Decision-Making Aids IntAR, Interventions Adaptive Reuse, Volume 03; Adaptive Reuse in Emerging Economies The Design of Innovation: Lessons from and for Competent Genetic Algorithms (Genetic Algorithms and Evolutionary Computation) Genetic Programming III: Darwinian Invention and Problem Solving (Vol 3) Data Quality (Advances in Database Systems) Real Time UML: Advances in the UML for Real-Time Systems (3rd Edition) Java: The Simple Guide to Learn Java Programming In No Time (Programming, Database, Java for dummies, coding books, java programming) (HTML, Javascript, Programming, Developers, Coding, CSS, PHP) (Volume 2) Visual Object-Oriented Programming Using Delphi With CD-ROM (SIGS: Advances in Object Technology) Neural and Adaptive Systems: Fundamentals through Simulations Fuzzy C-Means Clustering for Clinical Knowledge Discovery in Databases: Optimizing FCM using Genetic Algorithm for use by Medical Experts in Diagnostic Systems and Data Integration with SchemaSQL Fusion of Neural Networks, Fuzzy Systems and Genetic Algorithms: Industrial Applications (International Series on Computational Intelligence) Performance Evaluation of Complex Systems: Techniques and Tools: Performance 2002. Tutorial Lectures (Lecture Notes in Computer Science)

[Dmca](#)